

DOCKET NO: UPAP0011-100  
Serial No.: 09/622,452

PATENT  
Filed: October 31, 2000

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please amend claims 1 and 12.

Please withdraw claims 20-22.

Upon entry of this amendment, claims 1-4, 6, 7, 9-15, 17, 18, and 33-36 will be pending.

**STATUS OF CLAIMS**

**In the Claims:**

1. **(currently amended)** A pyrogen-free composition comprising a plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements and a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of: MCP-1, MIP-1 $\alpha$ , MIP-1 $\beta$ , IL-8, and RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1, Mac-1, p150.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA3, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE.
2. **(original)** The plasmid of claim 1 wherein said immunogen is a target protein that encodes a pathogen antigen, a cancer-associated antigen or an antigen linked to cells associated with autoimmune diseases.
3. **(original)** The plasmid of claim 1 wherein said immunogen is a pathogen antigen.
4. **(original)** The plasmid of claim 1 wherein said immunogen is an HIV-1 antigen.
5. **(canceled)**

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6. (original) An injectable pharmaceutical composition comprising the plasmid of claim 1.
7. (original) A method of inducing an immune response in an individual against an immunogen comprising administering to said individual a plasmid of claim 1.
8. (canceled)
9. (previously presented) The plasmid of claim 1 wherein said immunogen is herpes simplex antigen HSV2gD.
10. (previously presented) An injectable pharmaceutical composition comprising the plasmid of 7claim 9.
11. (previously presented) A method of immunizing an individual against a herpes simplex virus infection comprising administering to said individual a plasmid of claim 9.
12. (currently amended) A pyrogen-free composition comprising two plasmids:  
a first plasmid comprising a nucleotide sequence that encodes an immunogen operably linked to regulatory elements; and  
a second plasmid comprising a nucleotide sequence that encodes an immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of : MCP-1, MIP-1 $\alpha$ , MIP-1 $\beta$ , IL-8, RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1, Mac-1, p150.95, PECAM, ICAM-1, ICAM-2, ICAM-3, CD2, LFA-3, M-CSF, G-CSF, IL-4, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE.
13. (original) The composition of claim 12 wherein said immunogen is a target protein that encodes a pathogen antigen, a cancer-associated antigen or an antigen linked to cells associated with autoimmune diseases.

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14. **(original)** The composition of claim 12 wherein said immunogen is a pathogen antigen.
15. **(original)** The composition of claim 12 wherein said immunogen is an HIV-1 antigen.
16. **(canceled)**
17. **(original)** An injectable pharmaceutical composition comprising the composition of claim 12.
18. **(original)** A method of inducing an immune response in an individual against an immunogen comprising administering to said individual a composition of claim 12.
19. **(canceled)**
20. **(withdrawn)** The composition of claim 19 wherein said immunogen is herpes simplex antigen HSV2gD.
21. **(withdrawn)** An injectable pharmaceutical composition comprising the composition of claim 20.
22. **(withdrawn)** A method of immunizing an individual against a herpes simplex virus infection comprising administering to said individual a plasmid of claim 20.

**23-32 (canceled)**

33. **(previously presented)** A method of inducing an immune response in an individual against an immunogen comprising administering to said individual:
  - a nucleic acid molecule comprising a nucleotide sequence that encodes said immunogen operable linked to regulatory elements; and
  - a nucleic acid molecule comprising a nucleotide sequence that encodes said immunomodulating protein operably linked to regulatory elements, wherein said immunomodulating protein is selected from the group consisting of : MCP-1, MIP-1 $\alpha$ , MIP-1 $\beta$ , IL-8, RANTES, L-selectin, P-selectin, E-selectin, CD34, GlyCAM-1, MadCAM-1, LFA-1, VLA-1, Mac-1, p150.95, PECAM, ICAM-1, ICAM-2, ICAM-3,

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CD2, LFA-3, M-CSF, G-CSF, IL-4, mutant forms of IL-18, CD40, CD40L, vascular growth factor, IL-7, nerve growth factor, vascular endothelial growth factor, Fas, TNF receptor, Flt, Apo-1, p55, WSL-1, DR3, TRAMP, Apo-3, AIR, LARD, NGRF, DR4, DR5, KILLER, TRAIL-R2, TRICK2, DR6, and Caspase ICE.

34. (original) The method of claim 33 wherein said immunogen is a target protein that encodes a pathogen antigen, a cancer-associated antigen or an antigen linked to cells associated with autoimmune diseases.
35. (original) The method of claim 33 wherein said immunogen is a pathogen antigen.
36. (original) The method of claim 33 wherein said immunogen is an HIV-1 antigen.

37-39 (canceled)